

June 12, 2002

The Fauquier County Board of Supervisors
Fauquier County Court and Office Building
40 Culpeper Street, 4th floor
Warrenton, VA 20186

Dear Supervisors:

The Bandwidth Task Force, including representatives of Fauquier County telecommunications provider, consulting, user and other interests, is pleased to present the following findings and recommendations for a public/private broadband initiative to expand the availability of affordable high bandwidth service to commercial and individual residents.

The following core findings emerge, as set forth more fully in the enclosed Executive Summary and individual task analyses.

1. A strong and effective high bandwidth initiative will not only help retain existing businesses and encourage new businesses to locate in the County, but also signal the County's commitment to help its businesses in ways that directly benefit their ability to compete effectively.
2. Such an initiative will also benefit individual users and promote the County's educational and other goals in expanding access to distance learning, facilitating telecommuting and opening new horizons for those who, through choice or necessity, are closely tied to their homes.
3. By leveraging demand through a public/private consortium the County should be able to attract a substantial broadband provider which is prepared not only to serve consortium members, but the broader business and residential communities as well.

The Bandwidth Task Force believes that the adoption of the findings and recommendations in this report could significantly enhance the availability of broadband to its corporate and individual citizens, with a high ratio of benefit to cost.

Sincerely,

Christopher H. Johnson
Chairman, Fauquier County Bandwidth Task Force

**FAUQUIER COUNTY
BANDWIDTH TASK FORCE**

REPORT AND RECOMMENDATIONS

May 3, 2002

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BACKGROUND

The Fauquier County Economic Development Advisory Council (EDAC) approved the establishment of a Bandwidth Task Force, as a sub-committee of the EDAC, to develop and consider recommendations on options for expanding commercial and home access to affordable broadband in Fauquier County. The Economic Development Advisory Council accordingly recruited representatives of key organizations active as broadband providers, consultants and users in Fauquier County to the Fauquier County Bandwidth Task Force on February 13, 2002. The Task Force was allowed 60 days (extended to 90 days to allow time to schedule interviews with all available providers) to review the County's current broadband services, potential benefits and needs, and to report its recommendations to the Board of Supervisors. The Fauquier County Department of Economic Development was assigned to support the efforts of the Task Force.

The Bandwidth Task Force was assigned the following three specific questions and tasks.

- 1) To demonstrate the need for expanded bandwidth service within Fauquier County.
- 2) To formulate a strategy to achieve acceptable levels of bandwidth service throughout Fauquier County for both business and residential use.
- 3) To determine a means by which a private/public partnership may be established to meet the challenge of achieving an acceptable level of committed bandwidth service, and the appropriate role each should play.

The Economic Development Advisory Council has recognized the importance of broadband as a means to attract and retain business, and to benefit the community by enhancing citizen access to distance learning and other Internet resources.

The following is the report prepared by the Fauquier County Bandwidth Task Force, and submitted to the Fauquier County Board of Supervisors by the Economic Development Advisory Council for consideration and action as The Board of Supervisors deems appropriate.

EXECUTIVE SUMMARY

The Fauquier County Bandwidth Task Force is pleased to present its findings and recommendations regarding the expansion of access to affordable broadband service by County businesses and residents, as requested by the Fauquier County Economic Development Advisory Council. We believe that our recommendations will strongly advance the Board of Supervisors' Plan for Economic Development, and provide other educational, informational and other indirect benefits to local businesses and citizens, as well as to the community as a whole.

The Bandwidth Task Force recommendations are as follows.

Task #1

To demonstrate the need for expanded bandwidth service within Fauquier County.

Recommendation - The County's need for expanded bandwidth service is strong and growing, among business and residential users alike.

Task #2

To formulate a strategy to achieve acceptable levels of bandwidth service throughout Fauquier County for both business and residential use.

Recommendation - Fauquier County should develop a comprehensive plan to expand affordable broadband service generally, not only to service districts for businesses, but also in underserved rural areas for home use.

Task #3

To determine a means by which a private/public partnership may be established to meet the challenge of achieving an acceptable level of committed bandwidth service and the appropriate role each should play.

Recommendation - The Board of Supervisors should aggregate public and private sector broadband users and issue a Request for Proposals to the best qualified broadband suppliers seeking the best value, quality and coverage available not only for the consortium of aggregated consumers, but also for the broader business and residential communities.

TASK #1

To demonstrate the need for expanded bandwidth service within Fauquier County.

RECOMMENDATION

The County's need for expanded bandwidth service is strong and growing, among business and residential users alike.

FINDINGS

Existing Service and Plans

- Fauquier County lacks adequate, affordable high-speed data service, particularly in its rural areas, whose poor quality copper lines cause low speeds and unreliable connections.
- Feeling little competitive pressure, Verizon has been slow to expand DSL, fiber optic or other high bandwidth service to small businesses or homes.
- The Northern Virginia Electric Cooperative ("NOVEC") has yet to adopt a strategy to serve the County's business or home data communications markets and is unlikely to do so in the next 3-4 years.
- Satellite data service remains rudimentary, and relatively unreliable. While a new competitor has announced plans to enter the data market with improved service and lower prices, it remains to be seen whether, how and when this may benefit the County.
- Wireless broadband is a cost-effective option for providing expanded bandwidth in rural areas that is being implemented by many municipalities, as well as the Federal Government. Fauquier has basic wireless service available in some areas.

Business

- Expanded bandwidth service would enhance the County's ability to retain existing businesses, and to attract new small businesses (i.e. those using fewer than ten computers), as well as cottage businesses operating from residences and smaller offices.
- A strong and effective high bandwidth initiative would promote the County's image as a fully-wired community, benefiting business indirectly as well as directly, by signaling the County's commitment to technology.
- Current bandwidth service to Warrenton and to large businesses elsewhere in the County already compares favorably with other parts of Northern Virginia.

- *Expanded bandwidth could particularly benefit business sectors accounting for some 15% of current sales revenues, namely real estate (1.7%), professional services (6.2%), education (0.1%), health (5.5%) and entertainment (1.3%).
- *Expanded bandwidth could enhance profitability of retail businesses, representing more than 40% of County sales revenues.
- Expanded bandwidth could also increase productivity and competitiveness of manufacturing and wholesale businesses, representing a third of current revenues.
- Enhanced bandwidth would particularly benefit and attract for location or expansion in two of the economic sectors identified in the County's Economic Development Plan, Technology and Associations/Non-Profits.
- Current expanded bandwidth providers are generally more interested in serving large businesses than small businesses or homes, given greater use and budget.
- Affordable broadband would encourage the approximately 50% of the County's workforce that commutes outside the County to work more regularly from home, reducing rush hour traffic and enhancing productivity and family contact.

Residential

- Expanded bandwidth service would enhance service to our currently underserved residential community, particularly outside of Warrenton, which alone in the County is already relatively well served.
- Affordable expanded home bandwidth access would facilitate distance learning for public school and community college students and faculty, and for those who are restricted to the home for family or other reasons and seek expanded options to upgrade their academic, vocational or other knowledge and skills.
- County residents have demonstrated a strong and growing interest in distance learning, though affordable high bandwidth service has lagged the striking growth in available programs and demand.
- Higher quality expanded bandwidth service would particularly benefit residential users who enjoy access at work.

*Sources: U.S. Census Bureau; *1997 Economic Census: Summary for Fauquier County, VA*. 1997 NAICS Basis: Harvard Business Review: *Strategy and the Internet*, 2001.

TASK #2

To formulate a strategy to achieve acceptable levels of bandwidth service throughout Fauquier County for both business and residential use.

RECOMMENDATION

Fauquier County should develop a comprehensive plan to expand affordable broadband service generally, not only to service districts for businesses, but also in underserved rural areas for home use.

FINDINGS

- The greatest concentrations of current and likely future businesses and homes fall within the service districts, which will naturally attract their own expanded broadband service and could form the core for aggregating demand in attracting expanded broadband service.
- Since commercial broadband providers will inevitably target those markets that assure them a critical level of consumer demand and concentration, large areas of the County fail to register on their scale of priorities.
- Extending broadband to all service districts would make it available to those districts' businesses and residences, as well as to those within a limited distance beyond these districts reached by wireless broadband.
- Those living in underserved rural areas, limited as they are in their potential for broadband service by commercial feasibility, availability of location-neutral satellite service and terrain and foliage, deserve better service as well.
- While some smaller rural communities comparable to Fauquier County, such as Blacksburg, Virginia and Cumberland, Maryland, enjoy impressive broadband service, this has generally resulted from proactive government or education initiatives at state, county or local levels.

TASK #3

To determine a means by which a private/public partnership may be established to meet the challenge of achieving an acceptable level of committed bandwidth service, and the appropriate role each should play.

RECOMMENDATIONS

The Board of Supervisors should aggregate public and private sector broadband users and issue a Request for Proposals to the best qualified broadband suppliers seeking the best value, quality and coverage available not only for the consortium of aggregated consumers, but also for the broader business and residential communities.

- *Bids would be evaluated and the franchise awarded based on the best combination of price, technical solution, coverage and willingness to locate a substantial presence in Fauquier County.*
- *The winning bidder would receive a broadband franchise, which would include assured business from the aggregated public and private consumers based on existing budgets for an extended period, along with access to the County's existing and proposed public security and other towers and structures.*
- *Bidders would also commit to provide broad and affordable service to the County's business and residential communities.*
- *Development assistance via grants or loans from the Department of Agriculture and other federal and state agencies could be further investigated, and exploited if and as available.*

Additional Recommendations:

- *The Board of Supervisors could also consider the following compatible financial and regulatory incentives:*
 - *Free or reduced-cost access for broadband providers to County public security or other towers.*
 - *Requiring applicants to construct new communications towers to reserve a segment on such towers for County use.*
 - *Streamlined approval for locating non-intrusive antennas on rooftops.*
 - *Requiring water and sewage, transportation and other infrastructure builders to insert conduits for fiber optic or other communications cable, as well as actual cable.*

- *Requiring builders of residential developments and other new facilities to provide conduits and fiber optic cable, or to allow easements to the County to place antennas and communications dishes.*
- *Requiring cable and other television franchisees to assure Internet as well as television service.*
- *Low-interest loans.*
- *Temporary tax abatement.*
- *The Board of Supervisors could also entrust this Task Force with the following ongoing responsibilities:*
 - *Develop the proposed aggregated purchasing cooperative, with the support of Economic Development Agency staff.*
 - *Prepare the Request for Proposals.*
 - *Identify and distribute this to potential bidders.*
 - *Monitor and report to the Board of Supervisors on developments among providers, and advances in broadband technology and service.*

FINDINGS

- The County funds transportation, security, education and other infrastructure and community services generously, in support of a wide range of economic and public service goals. Broadband Internet promotes an expanding range of these same goals, including economic growth, education and community access to ever-expanding Internet resources. Rarely does an opportunity arise for a community to extend such strong benefits to so many, at so modest a cost.
- A growing number of similarly situated communities have vastly expanded community broadband access, with little or no local investment. For example, the State of Michigan has aggregated its purchasing to encourage providers to serve public and private users in remote areas. The County could emulate the successful models of such communities as Cumberland, Maryland, which have assured their corporate and individual citizens affordable, state-of-the-art wireless broadband service at little or no extra cost to the taxpayer, and immense benefit to the community.
- As the largest single consumer of telecommunications services in the County, the County government, including the public schools and along with Lord Fairfax Community College, could assure critical purchasing leverage to influence providers' business decisions.

- A number of providers interviewed by the Task Force were attracted the significant scope and commercial opportunity of this approach.
- Private entities, including banks, retail and medical facilities, could be attracted to participate in such a collective purchasing project by the prospect of enhanced broadband availability to those who lack it, and lower prices for those who already enjoy it.
- The County may possess a unique advantage vis-à-vis other communities in the region through its planned public security tower network, which along with the Vint Hill and other towers could be made available as part of the franchise.
- While Virginia’s “dark fiber” law restricts local governments from providing telecommunications services directly, it does not appear to exclude a cooperative procurement approach requiring broad community service, though the County Attorney could verify the legalities.